

W Y O M I N G CAREERS®



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of Workforce Services



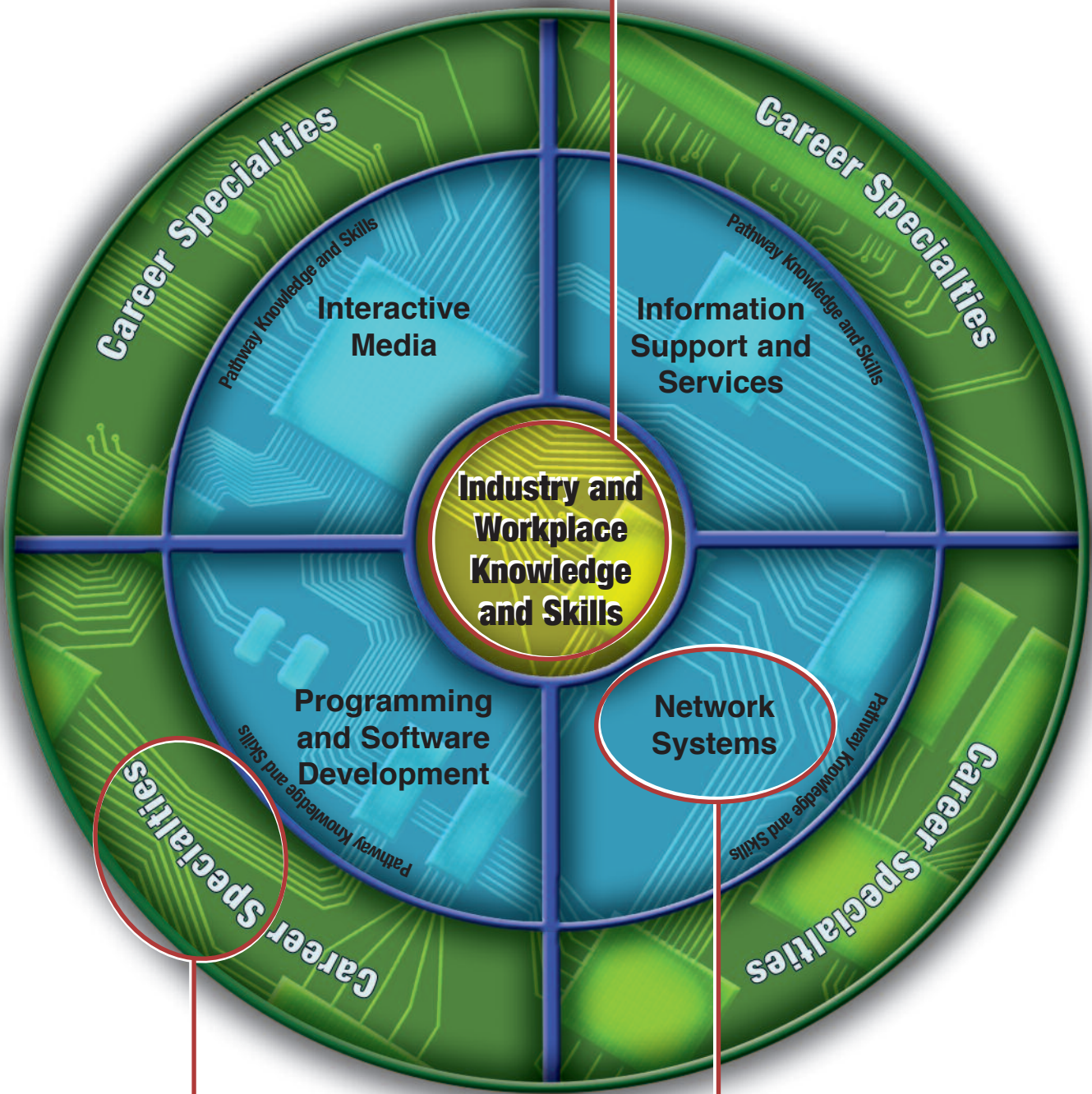
Building linkages in IT occupations framework: for entry level, technical and professional careers related to the design, development, support and management of hardware, software, multimedia and systems integration services.

Career Cluster Guide

2009-2010

CAREER CLUSTER MODEL

Industry and workplace knowledge and skills are taught and reinforced in all pathways and at all levels.



Highly specific career specialty skills are taught at the postsecondary level by colleges, trade schools, apprenticeships or other training options.

High schools offer some or all pathways to students and teach pathway-specific knowledge and skills.

PATHWAY

SPECIFIC OCCUPATIONS

Network Systems

- Data:**
- Communications Analyst
 - Data Communications Analyst
 - Information Systems Administrator
 - Information Systems Operator
 - Information Technology Engineer
- Network:**
- Administrator

- Analyst
- Architect
- Engineer
- Manager
- Operations Analyst
- Security Analyst
- Specialist
- Technician
- Transport Administrator

- PC Support Specialist
- Systems:**
- Administrator
 - Engineer
 - Support Lead
 - Technical Support Specialist
 - User Support Specialist
 - Telecommunications Network Technician

Information Support and Services

- Data:**
- Administrator
 - Analyst
 - Architect
 - Management Associate
 - Modeler
 - Modeling Specialist
- Database:**
- Administration Associate
 - Administrator
 - Analyst
 - Developer
 - Manager
 - Modeler
 - Security Expert
 - DSS (Decision Support Services)
 - Knowledge Architect
- Senior:**
- Database Administrator
 - Systems Analyst
- Systems:**
- Administrator
 - Analyst
 - Tester

- Enterprise Systems Analysis and Integration:**
- Application Integrator
 - Business Continuity Analyst
 - Cross-Enterprise Integrator
- Data:**
- Systems Designer
 - Systems Manager
 - Warehouse Designer
 - E-Business Specialist
 - Electronic Transactions Implementer
- Information Systems:**
- Architect
 - Planner
- Systems:**
- Analyst
 - Architect
 - Integrator
- Technical Writer:**
- Desktop Publisher
 - Document Specialist
 - Documentation Specialist
 - Editor
 - Electronic Publications Specialist
 - Publisher

- Instructional Designer
 - Online Publisher
 - Technical Communicator
 - Publications Manager
 - Writer
- Technical Support:**
- Analyst
 - Call Center Support Representative
 - Content Manager
- Customer:**
- Liaison
 - Service Representative
 - Service Professional
 - Testing Engineer
- Help Desk:**
- Specialist
 - Technician
 - Maintenance Technician
 - PC Support Specialist
 - PC Systems Coordinator
 - Product Support Engineer
 - Sales Support Technician
 - Systems Analyst
- Technical:**
- Account Manager
 - Support Engineer
 - Support Representative

Interactive Media

- Digital Media:**
- 2D/3D Artist
 - Animator
 - Audio/Video Engineer
 - Designer
 - Media Specialist
 - Media/Instructional Designer

- Multimedia:**
- Author
 - Authoring Specialist
 - Developer
 - Production Assistant
 - Programmer
 - Streaming Media Specialist
 - Virtual Reality Specialist

- Web:**
- Designer
 - Producer
 - Specialist
 - Administrator
 - Architect
 - Page Developer
 - Producer
 - Site Developer
 - Webmaster

Programming and Software Development

- Applications:**
- Analyst
 - Engineer
 - Business Analyst
 - Computer Engineer
 - Data Modeler
- Operating System:**
- Designer/Engineer
 - Programmer Analyst
 - Program Manager

- Programmer
 - Programmer/Analyst
 - Project Lead
- Software Applications:**
- Specialist
 - Architect
 - Design Engineer
 - Development Engineer
 - Engineer

- Quality Assurance Specialist
 - Tester
- Systems:**
- Analyst
 - Administrator
 - Test Engineer
 - Tester

Wyoming's Highest-Paying, Fastest-Growing Jobs

Title	Basic Description O*NET/SOC Description (may be truncated)	Anticipated Total 2014 Employment	
Source: See footnote #1	Source: See footnote #1	Source: See footnote #1	
Audio and video equipment technicians	Set up or set up and operate audio and video equipment.	71	
Computer, automated teller, and office machine repairers	Repair, maintain, or install computers, word processing systems, automated teller machines, and electronic office machines, such as duplicating and fax machines.	272	
Computer software engineers, applications	Develop, create, and modify general computer applications software or specialized utility programs.	314	
Computer support specialists	Provide technical assistance to computer system users. Answer questions or resolve computer problems for clients in person, via telephone, or from remote location.	541	
Computer systems analysts	Analyze science, engineering, business, and all other data processing problems for their application to electronic data processing systems.	275	
Network and computer systems administrators	Install, configure, and support an organization's local area network (LAN), wide area network (WAN), and Internet system or a segment of a network system. Maintain network hardware and software.	433	
Network systems and data communications analysts	Analyze, design, test, and evaluate network systems, such as local area networks (LAN), wide area networks (WAN), Internet, intranet, and other data communications systems.	422	

For additional information
and resources, go to:
[http://www.wyomingworkforce.org/resources/
links_career.aspx](http://www.wyomingworkforce.org/resources/links_career.aspx)

Information Technology

	Wyoming Number of New Jobs, Projected 2004-2014	Wyoming Estimated Hourly Average Wage	Wyoming Estimated Yearly Wage	Most Common Education/ Training	Suggested Programs of Study	Is at least one of these programs available in Wyoming?
	Source: See footnote #1	Source: See footnote #1	Source: See footnote #1	Source: See footnote #2	Source: See footnote #2	
	17	\$17.43	\$36,263	Long-term on-the-job training	<ul style="list-style-type: none"> • Agricultural Communication/ Journalism • Photographic and Film/Video Technology/Technician and Assistant • Recording Arts Technology/Technician 	Yes
	53	\$14.15	\$29,433	Postsecondary vocational award	<ul style="list-style-type: none"> • Business Machine Repair • Computer Installation and Repair Technology 	Yes
	112	\$27.63	\$57,466	Bachelor's degree	<ul style="list-style-type: none"> • Artificial Intelligence and Robotics • Computer Engineering • Computer Science • Computer Software Engineering • Information Technology 	Yes
	113	\$18.47	\$38,425	Associate degree	<ul style="list-style-type: none"> • Accounting and Computer Science • Agricultural Business Technology • Computer Hardware Technology • Computer Software Technology • Data Processing and Data Processing Technology 	Yes
	69	\$26.61	\$55,348	Bachelor's degree	<ul style="list-style-type: none"> • Computer Systems Analysis/Analyst • Computer and Information Sciences • Information Technology • Web/Multimedia Management and Webmaster 	Yes
	127	\$24.15	\$50,240	Bachelor's degree	<ul style="list-style-type: none"> • Computer Systems Analysis/Analyst • Computer Systems Networking and Telecommunications • Computer and Information Sciences • System Administration/ Administrator System, Networking, and LAN/ WAN Management 	Yes
	172	\$24.13	\$50,240	Bachelor's degree	<ul style="list-style-type: none"> • Computer Systems Analysis/Analyst • Computer Systems Networking and Telecommunications • Computer and Information Sciences, General • Computer and Information Systems Security • Information Technology 	Yes

1. Source: doe.state.wy.us/lmi
2. Source: www.careerinfonet.org

PROGRAMS OF STUDY

WYOMING COMMUNITY COLLEGES

INFORMATION TECHNOLOGY

Casper College

Central Wyoming College

Eastern Wyoming College

Laramie County
Community College

Northwest College

Northern Wyoming
Community College District

Western Wyoming
Community College

MAJORS

AS - Associate of Sciences AFA - Associate of Fine Arts
AA - Associate of Arts C - Certificate
AAS - Associate of Applied Sciences

A+ Certificate Program

Administrative Assistant

Agribusiness Technology

Basic Digital Imaging

Business Office Technology

Cisco Networking Associate

Cisco Networking Professional

Computer Electronics Technology

Computer Hardware Maintenance

Computer Information Systems

Computer Networking Administration

Computer Science

Computer Security

Computer Support Specialist

Computer Technology

Computer Web Design and Internet Business

Computer/Desktop Design (Graphic Arts)

Database Management Systems

Electrical Apprenticeship

Electricity

Electronics/Instrumentation/Control Technology

Engineering

Fundamentals of Integrated Systems Technology

General Technology

Geographic Information Systems

Graphic Design

Graphics Administration

Graphic Arts – Prepress Production Option

Help Desk Skills

Information Technology

Information Technology Support Specialist

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AAS

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Northwest College

Northern Wyoming
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MAJORS

AS - Associate of Sciences
AA - Associate of Arts

AAS - Associate of Applied Sciences
C - Certificate

Internet Technology
Internet Web Designer
Linux Systems
Management Information Systems
Microsoft Networking
Office Information Systems
Office Specialist
Office Support
Photographic and Digital Preservation Specialist
Photographic Communication
Printing Production
Professional Desktop Publishing
Programmer/Analyst
Software Application
Software Support Specialist
Web Design
Web Design and Application Skills
Web Development
Web Site Development
Word Processing

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			AAS, C			
			C			
AS			AS			
			AAS, C			
						AAS
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			AAS, C			
AAS, C						
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AAS, C		AAS				
AAS		C		C		
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UNIVERSITY OF WYOMING

COLLEGE OF ENGINEERING

Bachelor's

Master's

Doctorate

MAJORS

Computer Engineering

Computer Science

Electrical Engineering

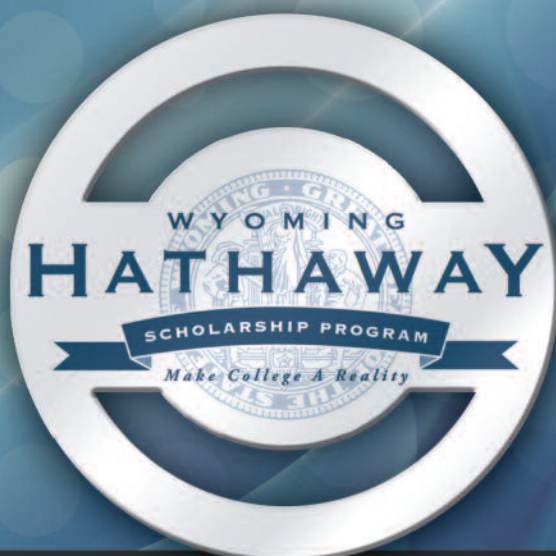
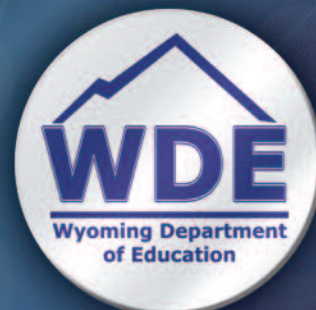
Electrical Engineering – Bioengineering

Electrical Engineering – Computer Engineering



Degree: An award conferred by a college or university signifying that the recipient has satisfactorily completed a defined academic or vocational-technical program of study: Associate of Arts, Associate of Science, Associate of Applied Science, Bachelor of Arts, or Bachelor of Science.

Certificate: An official document issued to a student by a college or university attesting to the training, aptitude and/or qualification gained from the satisfactory completion of a defined program of study. Credit hours vary from 0 to 60 credit hours and are awarded for attendance or specific skills gained. (Attendance requirements vary from one hour to two years of study, depending upon program requirements.)



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Future versions of the Wyoming Career Cluster Guides and accompanying Planning Guide may be modified in terms of content and format based upon user input. Please direct all suggestions and inquiries in writing to:

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Hathaway Building, 2nd Floor
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States' Career Clusters Initiative 2006
www.careerclusters.org